

Change Laboratory uses a collective process to resolve contradictions

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In this article, we describe the progress of a transformative process that takes place in the Change Laboratory and the tools and instruments used in it. In Community Workshops for digital support the participants modelled new practices for reducing the digital inequality of vulnerable groups applying the method of Change Laboratory. Organisations working with digital support and actors interested in co-creation of digital support were invited to participate in the workshops by the DigiOn and VoimaProfi projects.

The Change Laboratory is about developing new solutions that can be substituted for prevailing mindsets and practices. The outcome is a new solution that can be implemented in practice. This is achieved through analysing central development challenges together and envisioning a new direction of development. The participants' discussions during the Change Laboratory process turn individuals from acting alone into a co-creating group working on a collective activity. This triggers and sustains a development process that will also continue after the project.

The Change Laboratory is an intervention in which the participants reflect on and resolve contradictions that have emerged in their activities. It supports the participants' learning and the development of their agency (Engeström 2007; Virkkunen & Newnham 2013). In this intervention, the researcher has an important role. The researcher elicits and maintains a collective expansive learning process that consists of well-planned stimulating assignments, instructions and expansive learning actions. The learners are supported in solving contradictions by using instruments and tools such as the model of the activity system.

Learning is understood as participation in a change that is manifested in social interaction with others (Vygotsky 1978). The learning activity has six phases. The work begins with awareness of the need for a change and an analysis of main contradictions. As the participants notice tensions and challenges, this ensures their commitment to development. To develop a new activity model, new instruments and practices are implemented, and the participants prepare for the next steps by documenting the new principles, rules and practices (Figure 1).

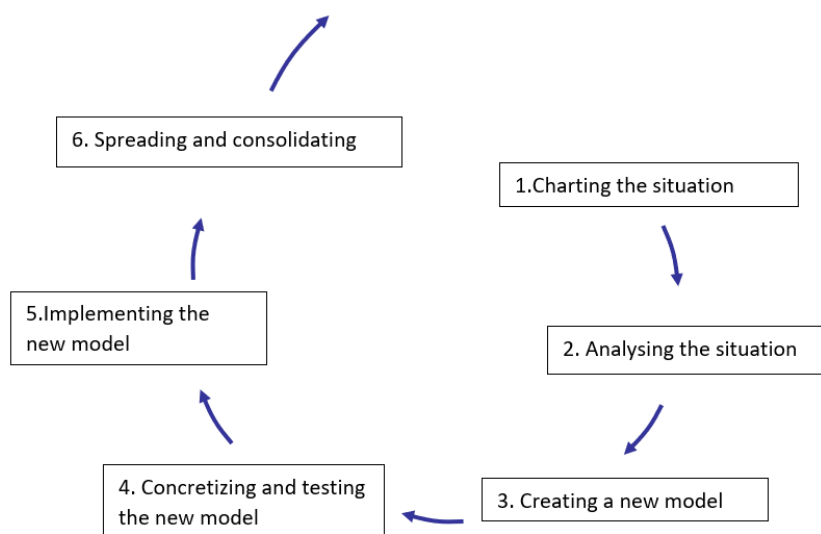


Figure 1. Phases of the Change Laboratory process (Figure: Lund 2022, adapted from Virkkunen & Newnham 2013).

The Change Laboratory method is based on the methodology of developmental work research (Engeström 1995). The research group at the University of Helsinki's Centre for Research on Activity, Development and Learning developed a participatory development method in which work organisation members come together to examine the causes of unworkable situations that have occurred in the activity.

The Change Laboratory has been used in a wide range of work organisations, including schools and hospitals, but also to solve wicked problems of society (poverty, climate change, pandemics) and today it is, in particular, used to promote the social, economic and political inclusion of vulnerable groups.

Community Workshops as an instrument of co-creation

In the Community Workshops for digital support, a development process took place in which evolving forms of digital support were examined as part of the participating organisations' activities and missions. The intervention comprised five Community Workshops and an experimentation period according to the Change Laboratory method (see also Lund 2021). The development process produced new information of the provision of digital support for vulnerable groups, the providers' roles and the factors affecting them. The scientific contribution of the study is associated with learning through social movements and the application of the Change Laboratory process together with experts by experience, municipalities, and organisations. The study also promotes the fourth-generation activity theory, in which many different levels come together (national, urban, NGO and grassroots levels) to resolve tensions and problems that obstruct activities (Engeström & Sannino 2020). This article focuses on aspects of the arranging the Community Workshops and the methodology of stepwise development (Figure 2).



Figure 2. Goals of the Community Workshops 10 February–13 October 2022 (Figure Lund 2022).

The aim of the Community Workshops was to develop the activities of various participants and organisations who were relevant providers of digital support in Espoo and Uusimaa (see Rantala, Marttila & Lund 2022). The cultural-historical activity theory offers theoretical instruments for understanding the development of human activity. Activity is understood as a complex systemic phenomenon manifested in social situations in which the human actions have a goal. They are targeted to the object of an activity through cultural tools (Figure 3). Rules, community and division of labour are other important elements of the activity system (Engeström 1987/2015, 2007).

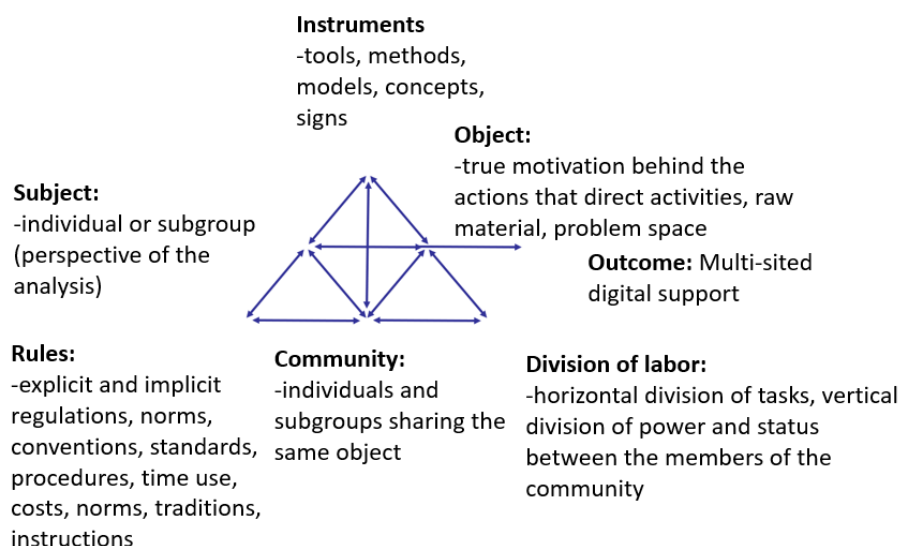


Figure 3. The model of human activity system and its elements (Figure: Lund 2022, adapted from Engeström 1987/2015).

Learning at Community Workshops takes place through resolving contradictions

Learning refers to the elaborating contradictions that arise from the tensions and movement in the above-mentioned elements in an activity system with the help of expansive learning actions. Contradictions refer to disturbances between different goals, relations, and interests in an activity system. Internal contradictions arise from a change in the object of the activity, and the solution lies in a new model. In order to identify contradictions, a historical examination of the object of activity is needed. Contradictions take different forms in discussions between people, including dilemmas, conflicts, critical conflicts, and double binds (Engeström & Sannino 2011).

An example of a central contradiction in the practice of digital support is associated with providing and receiving digital support: while digital support is provided in many places, some citizens are still left without it. Expansive learning actions refer to questioning a prevailing practice, practical analysis, modelling of a new solution, examining a new model, implementing the model, reflecting on the process and consolidating the new practice (Engeström, Rantavuori & Kerosuo 2013). Expansive learning is a process manifested as consequential series of learning actions that have a specific order and a way/system of moving from one learning action to another (Davydov 2008, Engeström & Sannino 2010).

New practices are created in the zone of proximal development (ZPD) emerging in the activity system, which expands the object of learning temporally and spatially. Expansive learning also involves development in participants' agency, not only through expansive learning actions but also through transformative actions from the individual manifestations of the needs to collective change efforts. Transformative agency is manifested through six transformative actions, which are resisting change, criticising the existing activities, analysing new possibilities, envisioning new possibilities, committing to concrete activities and undertaking a joint activity (Engeström 2011, Haapasaari, Engeström & Kerosuo 2016, Sannino 2008).

Agency can be examined as collective agency (Freire 1970), relational agency (Edwards 2005) and transformative agency (Haapasaari et al. 2016). While the primary focus of this research project is on transformative agency, distinguishing between different agency types is difficult, but other types are also apparent (see Lund & Juujärvi 2018, Lund & Kerosuo 2019, Lund 2021). Transformative agency means resolving contradictions together and initiating a change towards new possibilities.

Double stimulation activates learning

The strength of the activity theory lies in the transformation of an individual's actions into a collective activity through the change process. The participants are involved in planning the activity to carrying it out. Their interest in the tensions and challenges in the activity emerges by using the principle of double stimulation, in which the researcher regulates the activity with two stimuli (first and second)

(Sannino 2020). Mirror data stimulates expansive learning actions to emerge. They are acquired from current practices and prior developmental stages. Their purpose is to evoke criticism of the current situation and methods. The mirror data, produced by the participants or by the researchers, may be images, writings, recordings, etc., which illustrate the hidden details of the contradictions. In this development process, the mirror data consisted of photographs of people engaged in digital activities, critical articles and blog posts about digital support, extracts from previously conducted interviews, videos, participants' thoughts about and experiences of digital support during the Community Workshop process, activity systems created by the groups, an expert panel discussion by the participants, foresight dialogues and an expert speaker (see Figure 4).



Figure 4. Examples of the mirror data (first stimulus) used in the Community Workshops (Figures Lund 2022).

The acquired mirror data are the first stimulus that draws the participants' attention to issues requiring development and motivates them to resolve the matter. Even minor disturbances and deviations in the activity indicate that the established activity system is changing and predict something new that is yet unknown. The first stimulus indicates the tensions in an activity and makes participants act together (collectively). The second stimulus means that the participants come up with a solution to a difficult situation together with the help of a mediating tool, for example a piece of information, speech, graph, map etc. and build a new practice to replace the old one. In the Community Workshops, the second stimulus was the model of the activity system and its elements, which was given to the participants as an instrument for analysing the contradiction (see Figure 3). The instruments support problem solving (second stimulus).

Community Workshops promoted the change experiments

During the spring, three groups were formed in the fourth Community Workshop, which envisioned and modelled change experiments for developing digital support from the perspective of vulnerable groups (Figure 5). The purpose of the experiments was to find solutions to existing contradictions. As practical experiments, the participants worked on three experiments during the summer: digital devices for all, a visual digital support symbol, and a digital language and terms that everyone can understand. The Change Laboratory was used as a goal-oriented guidance tool of the change process and to support the introduction of new practices and methods.



Figure 5. The participants analyse the situation with the help of the activity system's elements by considering the object, tools, rules, division of labour, the subject and the community of the activity system (Figure Lund 2022).

The projects of DigiOn - Happiness for Everyone and VoimaProfi - Empowering People towards Socially Inclusive Society projects, promote the digital inclusion of vulnerable people.



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